

WHAT IS CLAIMED IS:

1. A thermoplastic resin composition, in which in the case of using samples of an insulated electric wire 3.0 mm in finishing diameter wherein the periphery of a conductor (1.35 mm in outer diameter) made of seven twisted soft copper wires each having a diameter of 0.45 mm is coated with the thermoplastic resin composition of 0.8 mm in thickness to carry out a flame-resistance test at flame-resistance test angles θ of 45°, 60°, and 90°, the maximum angle A out of the flame-resistance test angles θ at which the samples are spontaneously extinguished within 60 seconds from the ignition thereof satisfies the following expression (1):

$$A \geq 1.8 \times \sigma + 13.4 \quad (1)$$

wherein σ is the torsional rigidity (MPa) of a sheet 2 cm in thickness made of the thermoplastic resin composition at 23°C.

2. A thermoplastic resin composition, in which in the case of using samples of an insulated electric wire 3.0 mm in finishing diameter wherein the periphery of a conductor (1.35 mm in outer diameter) made of seven twisted soft copper wires each having a diameter of 0.45 mm is coated with the thermoplastic resin composition of 0.8 mm in thickness to carry out a flame-resistance test at flame-resistance test angles θ of 45°, 60°, and 90°, the maximum angle A out of the flame-resistance test angles θ at which the samples are spontaneously extinguished within 60 seconds from the ignition thereof satisfies the following

expression (2):

$$A \geq 1.9 \times \sigma + 15.4 \quad (2)$$

wherein σ is the torsional rigidity (MPa) of a sheet 2 cm in thickness made of the thermoplastic resin composition at 23°C.

3. The thermoplastic resin composition according to claim 1 or 2, which comprises:

(A) 25 to 59.9% by weight of at least one substantially random interpolymer comprising

(1) 1 to 99% by mol of a polymer unit derived from

(a) at least one aromatic vinyl or vinylidene monomer,

or

(b) at least one hindered aliphatic or alicyclic vinyl or vinylidene monomer, or

(c) a combination of at least one aromatic vinyl or vinylidene monomer and at least one hindered aliphatic or alicyclic vinyl or vinylidene monomer, and

(2) 1 to 99% by mol of a polymer unit derived from at least one α -olefin having 2 to 20 carbon atoms,

(B) 40 to 60% by weight of magnesium hydroxide, and

(c) 0.1 to 20% by weight of a triazine compound.

4. The thermoplastic resin composition according to claim 3, wherein the interpolymer (A) is a substantially random interpolymer comprising 5 to 65% by mol of a polymer unit derived from at least one aromatic vinyl or vinylidene monomer, and 35 to 95% by mol of a polymer unit derived from at least one α -olefin

having 2 to 20 carbon atoms.

5. The thermoplastic resin composition according to claim 3, wherein the interpolymer (A) is a substantially random interpolymer comprising 5 to 65% by mol of a polymer unit derived from styrene, and 35 to 95% by mol of a polymer unit derived from at least one α -olefin having 2 to 10 carbon atoms.

6. The thermoplastic resin composition according to claim 3, wherein the interpolymer (A) is a pseudo random interpolymer comprising 5 to 50% by mol of a polymer unit derived from at least one aromatic vinyl or vinylidene monomer, and 50 to 95% by mol of a polymer unit derived from at least one α -olefin having 2 to 20 carbon atoms.

7. The thermoplastic resin composition according to claim 3, wherein the interpolymer (A) is a pseudo random interpolymer comprising 5 to 50% by mol of a polymer unit derived from styrene, and 50 to 95% by mol of a polymer unit derived from at least one α -olefin having 2 to 10 carbon atoms.

8. The thermoplastic resin composition according to any one of claims 3, wherein the triazine compound (C) is melamine cyanurate.

9. A molding comprising the thermoplastic resin composition according to any one of claims 3.

10. The molding according to claim 9, which is an electric wire insulator and/or sheath.